

2. Context yellowish brown. 3
Context reddish orange; plants growing on trunks of *Juniperus*. 8
3. Spores hyaline. 4
Spores yellowish brown. 6
4. Pileus becoming more or less rimose with age. 5
Pileus covered even in age with a smooth horny crust. *P. Calkinsii* Murrill
5. Pileus simple, sulcate, sometimes polished, margin usually narrow and rounded; not found on species of *Prunus*. *P. igniarius* (L.) Murrill
Pileus terraced, imbricate or semi-resupinate, rarely sulcate, never polished, margin broad, making an obtuse angle; found on species of *Prunus*.
P. fulvus (Scop.) Murrill
6. Pileus soon becoming rimose. 7
Pileus not rimose, broadly sulcate, zonate, tubes thin-walled, spores 3μ in diameter, spines large and abundant; growing on oak.
P. Everhartii (Ell. & Gall.) Murrill
7. Tubes long, over 0.5 cm. each year, walls thin, pores large, 3 to a mm., spores $3-4\mu$, cystidia present; rare on oak. *P. praerimosus* Murrill
Tubes very short, 0.1-0.5 cm. long each year, walls equaling pores in thickness, mouths small, 5 to a mm., spores $4-5\mu$, cystidia none; abundant on *Robinia*.
P. Robiniae Murrill
8. Older pores visible in projecting annual layers, tubes 3-4 to a mm., thin-walled; pileus deeply furrowed, not rimose. *P. juniperinus* (Schrenk) Murrill
Older pores not externally visible, tubes 1-2 to a mm., thicker-walled; surface very rimose. *P. Earlei* Murrill
9. Cystidia abundant, pointed, dark brown; pileus thin, rigid, tubes short, 5 to a mm. *P. conchatus* (Pers.) Murrill
Cystidia none. 10
10. Pileus 10-25 cm. broad, marked with narrow shallow furrows, margin undulate or lobed, pores minute, 8-9 to a mm. *P. Langloisii* Murrill
Pileus smaller, deeply sulcate, pores larger, 6 to a mm.; growing on species of *Ribes*, very rarely on other shrubs. *P. Ribis* (Schum.) Murrill

G. KEY TO THE SPECIES OF NIGROFOMES

1. Pileus large, sessile, context purple, tubes black, spores hyaline; found on trunks in Florida. *N. melanoporus* (Mont.) Murrill

NEW YORK BOTANICAL GARDEN.

ADDITIONAL NOTES ON SOUTHERN ILLINOIS PLANTS

BY H. A. GLEASON

Pinus cchinata Mill. Since the occurrence of this species in the Pine Hills of Union County was mentioned in this journal,*

*TORREYA, 3: 1.

two other stations have been found, at Mill Creek, in the same county, and at Elco, Alexander County, located respectively twenty and twenty-five miles south of the Pine Hills. The three places are geologically similar, the underlying rock is the Clear Creek limestone, and the soil is residual, without a deposit of loess, which covers most of the southern Illinois hills. Since the same geological formation extends over most of the area between Elco and the Pine Hills it is very probable that other scattered groves of the pine occur upon it.

Lilium Catesbaei Walt. is reported from Jackson County by Professor G. H. French.

Castanea dentata (Marsh.) Borkh. There is no published record, in Patterson's Flora of Illinois or elsewhere, of the growth of this species in the state. It is, however, undoubtedly native in Pulaski County in the extreme southern part of the state on the Ohio River. It appears to grow only in the heavy clay soils of the Lafayette formation, and may occur in the adjacent counties where the same formation is found. A photograph sent by Mr. B. F. Gault represents a tree at least four, or possibly five feet in diameter.

Perilla frutescens (L.) Britton. This Asiatic mint, first reported from Illinois by Dr. Schneck,* is widely distributed over the southern part of the state and extends north as far as Centralia. In some places it is one of the commonest roadside weeds, growing in patches with *Amaranthus spinosus* and *Eleusine Indica*.

Hedeoma hispida Pursh. On thin dry soil overlying limestone ledges in Jackson County.

Pentstemon canescens Britton. Steep dry rocky hillsides in the Pine Hills, Union County. It also grows abundantly in similar situations across the Mississippi in Perry County, Missouri.

Houstonia lanceolata (Poir.) Britton. This species is reported from several stations in central and southern Illinois, and extends northward to Champaign County, in the east-central part of the state. It grows in a variety of conditions. In Champaign County it is found on the steep sides of clay bluffs with *Helian-*

* Cf. Pollard, Bot. Gaz. 21 : 233.

thus strumosus and *Taenidia integerrima*. On the prairies of central Illinois it forms circular patches of considerable extent, and in the Ozark region it is one of the commonest species in the semi-mesophytic upland woods, growing as scattered individuals.

Viburnum rufotomentosum Small. On dry ledges and in fissures of limestone cliffs, Jackson County.

Serinia oppositifolia (Raf.) Kuntz is abundant in Perry County, Missouri, growing in sandy soil along the Mississippi River, and also farther inland in dry upland woods. It has lately been collected by Mr. E. S. G. Titus near Eldorado, Illinois, where it grows in dry soil along a railroad, but in such surroundings that it appears indigenous.

Sitilias Caroliniana (Walt.) Raf. In wet, open places, Massac County.

Those areas in Virginia, Illinois and Missouri where the coastal plain, with its austro-riparian flora reaches into the so-called "Manual range" have always been a fertile field for collectors, and from them many additional species have been added to the "Manual flora." The work of B. F. Bush in the swamps of southeastern Missouri has been of particular importance because of the number of interesting species which he found there. Three of these species, not previously reported from Illinois, were collected in 1902 in the cypress swamps of Johnson and Massac counties: *Fraxinus profunda* Bush, *Styrax Americana* Lam., and *Itea Virginica* L.

Koellia incana (L.) Kuntze. The distribution of this species as stated in the Illustrated Flora (3: 114) or Britton's Manual (802) does not include Illinois, the range given being Maine to Ontario, Ohio and Florida. In southern Illinois it is abundant in upland woods and abandoned clearings, where the white canescent bracts make it very conspicuous. It has been collected in every county including and south of the Ozark uplift, but its northern limit in the state is as yet undetermined.

There are a number of other species in Illinois, whose range, as given in the two works mentioned, does not include this state. Among these may be mentioned the following: *Cunila origanoides* (L.) Britton is common in the upland woods of the extreme south-

ern part, and extends north as far as the mouth of the Illinois River, where it has been collected by Professor W. E. Andrews. *Spermacoce glabra* Michx. extends northward along the rivers well into central Illinois. *Triadenum petiolatum* (Walt.) Britton is common in the cypress swamps of Johnson and Massac counties, and *Agrimonia pumila* Muhl. in the upland woods of the Ozark region.

OHIO STATE UNIVERSITY, COLUMBUS.

SHORTER NOTES

Hymenoxys insignis — (*Actinella insignis*, A. Gray; S. Watson, Pr. Am. Acad., 18: 109). In my recent paper on *Hymenoxys* (Bull. Torrey Club, 31: 461. S 1904), I omitted this species, as I had seen only some fragments of a head, and was uncertain whether it was really of this genus. I have now examined the type sheet (from Lerios, 15 leagues E. of Saltillo, Mexico, 10,000 ft., Palmer) in the Gray Herbarium, and am satisfied that the plant is a *Hymenoxys*, most nearly allied to *H. chrysanthemoides*, but quite distinct.

T. D. A. COCKERELL.

RYNCHOSPORA PRINGLEI Greenman. — This species, published in Proc. Am. Acad. 39: 69. 25 S 1903, is the same as *R. Indianolensis* Small, Fl. S. E. U. S. 193. 22 J1 1903. Mr. Greenman's specimens came from Zamora, Michoacan (Pringle, 8642) and Dr. Small's from Indianola, Texas (Ravenel). The species is next to *R. scutellata* Griseb. Pl. Cub. 246. 1866, to which it has been referred by Mr. C. B. Clarke, but it differs from that by its congested inflorescence with several or many spikelets in the clusters, and seems to me to be distinct.

N. L. BRITTON.

NOTES ON CUBAN PLANTS. — *Dichrostachys nutans* (Pers.) Benth., an African tree, naturalized in Cuba, though apparently not heretofore reported from the West Indies, was observed in March, 1903, by Dr. Britton and the writer, forming dense thickets, covering several acres, almost to the exclusion of all other plants, on the grounds surrounding an old Spanish fort near the mouth of the Bueyvacá, on the Bay of Matanzas and several